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September 28, 2025

Article Review #1

Role of Personality Traits and Cybersecurity Behavior

BLUF:

This experiment shows that personality traits can predict security policy compliance in employees. Using the Big Five personality theory we can attribute traits to being more or less likely to comply with policies. The most significant positive traits being conscientiousness and agreeableness. The negative traits were extraversion and neuroticism but only had slight negative results.

Introduction

This article is about how personality traits change employee compliance towards cybersecurity policy. The main purpose of this article is to learn more about individual traits and differences in personality that influence safe behavior and policy compliance. The information gathered from this research can be used to help train employees more effectively, improve policy compliance rate and refine safety policies.

This is an excellent opportunity to improve employee understanding of safety policies which in turn mean better security. This will also allow for policy updates for relevancy and comprehension. I love the purpose of this experiment, and I think it is valuable to repeat in most security related fields for better overall security, employee attitude and employee understanding.

Method

The method of this experiment was mainly via surveys to measure personality traits. The independent variable was the Big Five personality traits, and the dependent variable was policy compliance and attitude. Policy compliance rates were reported and measured by the employees themselves via a questionnaire, which I believe is a flawed form of data gathering. Employees are going to be influenced to lie about compliance rates due to bias. Obviously if I were asked how often I do not follow safety policies, I would say never. This data was analyzed by Pearson correlation to see if each trait significantly predicted compliance and employee attitude.

Findings

The traits agreeableness and conscientiousness had the most significant correlations. This finding means the more agreeable and conscientious a person is, the higher chance for policy compliance. *"Conscientiousness was the strongest predictor of compliance, as disciplined and*

organized individuals are most likely to practice safe behaviors such as using strong passwords and keeping systems updated" (Ghaleb & Sattarov, 2025, p. 47). Extraversion and neuroticism both showed slight negative correlations. Meaning that the more extraverted and neurotic a person is, there is a lower chance for policy compliance. There was no significant outcome for openness to experience. Meaning that, it did not seem to have any effect on compliance at all. These findings are very interesting and make perfect sense to me. Being a more agreeable and conscientious person would make that person more conscious of rules and why/how they should be following them.

Conclusion

Conscientiousness and agreeableness having a significant positive to rates of compliance is an important thing to note for the hiring and turnover process of employers but can also be used to improve employee security behavior. Obviously, personality should not play a leading role in hiring/turnover, but it is something that cannot go completely unnoticed, especially in a field where lack of security could lead to a user's personal information leaking for the entire internet to see. Societal contributions from this study could be the improvement of security, better employee training and more inclusive policies that are formatted to suite more extraverted and neurotic people. Ultimately, personality does play a role in policy compliance in the field of cybersecurity, and this experiment showed noteworthy results to back that. Despite this claim, it is not an absolute truth. There are many cases where personality and compliance are not related. At the end of the day work ethics and motivation are what drive good employee practices.

References

Ghaleb, M. M. S., & Sattarov, A. (2025). Role of personality traits and cybersecurity behavior. *International Journal of Cyber Criminology, 19*(1), 27–53. https://cybercrimejournal.com/menuscript/index.php/cybercrimejournal/article/view/438/124